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Amended Claims

1. A method for fabricating a functional dental element, wherein a three-dimensional printing technique is used and wherein the element is subjected to infiltration by a second phase.
2. A method according to claim 1, wherein the infiltration is preceded by a debinding step and/or a sintering step.
- 5 3. A method according to claim 1 or 2, wherein the shape and dimensions of the dental element are measured in a patient while using an optical scan technique, preferably a laser technique.
4. A method according to claim 3, wherein the laser technique yields data about shape and dimensions in electronic form.
- 10 5. A method according to any one of the preceding claims, wherein layers of a suitable material are successively applied onto each other by three-dimensional printing and wherein each layer is bonded at desired positions to a preceding layer thereby allowing the removal of excess, non-adhering material.
- 15 6. A method according to claim 5, wherein the suitable material is a powder and wherein the bonding between the layers is realized by means of a binder.
7. A method according to claim 6, wherein a computer is used for controlling, on the basis of the data obtained upon measuring, a print head which applies the binder to specific, desired positions.
- 220 8. A method according to claim 6 or 7, wherein the binder is selected from the group of colloidal silica, polyvinyl acetate (PVA), starch adhesives, acrylates, polyvinyl alcohol, polyethylene oxide (PEO), ethylenevinyl acetate (EVA) and derivatives thereof.
9. A method according to claims 6-8, wherein the powder is selected from the group of ceramic materials, such as SiO₂, Al₂O₃, K₂O, Na₂O, CaO, Ba₂O, CrO₂, TiO₂, BaO, CeO₂, La₂O₃, MgO, ZnO, Li₂O and combinations thereof, and metals, such as alloys of gold, platinum, palladium, nickel, chromium, iron, aluminum, molybdenum,
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10. A method according to any one of claims 6-9, wherein the layers are applied with a doctor blade.

12. A method according to claim 11, wherein in a layer, powders of a different nature are used.

13. A method according to claim 12, wherein in a layer, powders of a different color are used.

15. A method according to claims 12-14, wherein the powder is locally applied with a computer-controlled nozzle.

15 16. A method according to claims 12-15, wherein at least one of the powders has
an average particle size less than 50 nm.

17. A method according to any one of the preceding claims, wherein the dental element is sintered at a temperature of 400-800 °C for a period between 10 minutes and 3 hours.

20 18. A method according to claim 17, wherein after sintering an infiltration with
✓ a glass-ceramic or a polymer is carried out.

19. A method according to any one of the preceding claims, wherein the dental element is additionally shaped by grinding, filing, polishing, sanding, blasting or treatment with a ball bed.

25 20. A dental element obtainable by a method according to any one of the preceding
claims.